

APPENDIX E

Technical Methods - Environmental Justice

APPENDIX E – TECHNICAL METHODS: ENVIRONMENTAL JUSTICE

Data Sources and Calculations Associated with Section 4.7. Sources and calculations underlying data appearing in Section 4.7 are generally described here.

Data Sources:

Annual tribal data on number of fish harvested in the tribal commercial fishery within the action area, weight of that tribal catch and average price obtained by tribal fishermen – displayed in Table 4.7-1 by salmonid species – was obtained from the Northwest Indian Fisheries Commission database.

Data on average fish sizes and prices, 1996 through 2001, used for estimating revenue associated with each alternative, was provided by The William Douglas Company, based on information from the Washington Department of Fish and Wildlife.

Other data sources are as cited in appropriate tables.

Table 4.7-1 Tribal salmon fishing revenue for the action area – 17 fishing tribes.

Revenue estimates were obtained by multiplying the number of pounds of each species caught by the tribes by the appropriate average price per pound for each year – 1999 through 2001.

Table 4.7-2 Selected data for potentially affected tribes.

These data were extracted from the U.S. Bureau of the Census, Census 2000.

Table 4.7-3 Relative mortality for tribal peoples compared to residents of Washington State.

These data are extracted from a 1994 report of the Portland Area Indian Health Care Service.

Table 4.7-4 Estimated tribal salmon harvested annually under Alternative 1, Scenario B.

These data are taken from Tables C3-1 through C3-68 in Appendix C3, developed by the Biological Team.

Table 4.7-5 Estimated annual tribal salmon revenue, by species – Alternative 1, Scenario B.

Using 1996–2001 average prices and fish sizes from The William Douglas Company/Washington Department of Fish and Wildlife:

Step 1: Estimated numbers of each species of salmon harvested under Alternative 1 (Table 4.7-4) were multiplied by their average size to obtain estimated pounds of each species caught by the tribes under Alternative 1.

Step 2: Estimated pounds of each species caught under Alternative 1 (Step1) were then multiplied by average annual price per pound for each species to obtain estimated annual tribal salmon revenue, by species, under management Alternative 1.

Table 4.7-6 Predicted tribal harvests of chinook salmon under Alternative 1, Scenarios A, C, or D.

The same procedure was used as that used to develop Table 4.7-4.

Estimated impacts to tribal fishing revenue under Alternative 1 for Scenarios A, C, or D, reported in the Section 4.7.1 narrative, were developed using the procedure previously described for Table 4.7-5.

Table 4.7-7 Number of tribal salmon caught annually under Alternative 2, Scenario B.

The same procedure was used as that used to develop Table 4.7-4.

Estimated impacts to tribal fishing revenue under Alternative 2, reported in the Section 4.7.2 narrative, were developed using the procedure previously described for Table 4.7-5.

Table 4.7-8 Predicted tribal harvests of chinook salmon under Alternative 2, Scenarios A, C, or D.

The same procedure was used as that used to develop Table 4.7-4.

Estimated impacts to tribal fishing revenue under Alternative 2 for Scenarios A, C or D, reported in the Section 4.7.2 narrative, were developed using the procedure previously described for Table 4.7-5.

Table 4.7-9 Estimated tribal salmon numbers harvested annually under Alternative 3, Scenario B.

The same procedure was used as that used to develop Table 4.7-4.

Estimated impacts to tribal fishing revenue under Alternative 3, reported in the Section 4.7.3 narrative, were developed using the procedure described for Table 4.7-5.

Table 4.7-10 Predicted tribal harvests of chinook salmon under Alternative 3, Scenarios A, C, or D.

The same procedure was used as that used to develop Table 4.7-4.

Estimated impacts to tribal fishing revenue under Alternative 3 for Scenarios A, C or D, reported in the Section 4.7.3 narrative, were developed using the procedure previously described for Table 4.7-5.

Table 4.7-11 Estimated tribal salmon numbers harvested annually under Alternative 4, Scenario B.

The same procedure was used as that used to develop Table 4.7-4.

Estimated impacts to tribal fishing revenue under Alternative 4, reported in the Section 4.7.4 narrative, were developed using the procedure described for Table 4.7-5.

Table 4.7-12 Predicted tribal harvests of chinook salmon under Alternative 4, Scenarios A, C, or D.

The same procedure was used as that used to develop Table 4.7-4.

Estimated impacts to tribal fishing revenue under Alternative 4 for Scenarios A, C, or D, reported in the Section 4.7.3 narrative, were developed using the procedure previously described for Table 4.7-5.